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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,714	12/27/2001	John Clement Preston	WAT0120	4729

7590

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EXAMINER

SLACK, NAOKO N

ART UNIT

PAPER NUMBER

3635

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/009,714

Applicant(s)

PRESTON, JOHN CLEMENT

Examiner

Naoko Slack

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the T-sectioned spacers and angle-sectioned spacers of claims 4 and 5 respectively must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 1,850,118 to Meyers in view of US Patent 4,964,256 to McCracken.

Meyers discloses a channel shaped structural members (Figure 7) and angle clips (Figure 5) for forming steel frames in buildings, bridges, and the like. Two rows of apertures are formed on the back wall, and a single row of apertures are formed on each side wall. The pitch between adjacent apertures is a value "X", and the distance of the apertures to the lateral edges is "1/2 X" (see dimensions in Figure 7). Meyers members require assembly with angle clips (23). Meyers does not show end plates.

McCracken teaches the use of endplates (16) welded to ends of channel-shaped structural members (14). The end plates allow the beams to be fastened end-to-end to any desired length without sacrificing beam strength (column 3, lines 52-58).

In view of McCracken, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use end plates on the ends of Meyers structural channels to connect the members while obviating additional fastening elements such as angle clips (23). Meyers would be motivated to obviate connecting clips, as Meyers aims to reduce the labor involved in the erection of steel framework (column 1, lines 38-47).

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 1,850,118 to Meyers in view of US Patent 4,964,256 to McCracken as applied to claim 1 above, and further in view of US Patent 2,936,051 to Martin.

While Meyers in view of McCracken fail to show a structural member with six planar faces, Martin teaches a structural member comprising six planar faces formed from two channel members (84, Figure 13) connected by cross-braced spacer means (96) which spaces the apertures a whole number multiple of the pitch distance (Figure 12, see pitch on end cap). A structural member with six planar faces offers maximum strength and allows quick and easy erection of structural frames (column 1, lines 19-24).

In view of Martin, it would have been obvious to one of ordinary skill in the art to connect two of Meyer's channel members to form a box beam with endplates, as

*pushing* (Meyers is interested in forming an economical construction element with maximum strength (column 1, lines 38-47).

Claims 2-5, 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 1,850,118 to Meyers in view of US Patent 4,964,256 to McCracken as applied to claim 1 above, and further in view of US Patent 2114901 to Henderson.

While Meyers fails to show a structural element comprising angled members connected by spacers, Henderson teaches a structural steel member comprised of angled sections (2, Figure 4) connected by a plurality of spacer plates (3, Figure 4).

*no hook* (In view of Henderson, it would have been obvious for one of ordinary skill in the art at the time the invention was made to form Meyer's structural members with angled sections and a plurality of connecting spacers to lighten the weight of the structural member, as Meyers is concerned with forming lighter steel sections for smaller buildings (column 1, lines 29-37).

While a T-sectioned or angle sectioned spacer is not specified, such cross-sections comprise obvious variations of structural members available to one of ordinary skill in the art. Furthermore, applicant has not disclosed the advantage of using members with T or angled cross-sections, other than to suggest them as variations for the spacer member.

***Prior Art of Record***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 1,915,697 to Robinson discloses a structural member comprising angled members connected by a plurality of spacers.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naoko Slack whose telephone number is (703) 305-0315. The examiner can normally be reached on Mon-Fri (6:00 am-2:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703) 308-0839. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



NS  
April 3, 2003



Carl D. Friedman  
Supervisory Patent Examiner  
Group 3600